

We claim:

1. A method comprising:
selecting a plurality of key frames from a video data file; and,
generating an animated image file from the plurality of key frames.
- 5 2. The method of claim 1, further comprising, prior to generating the animated image file, reducing in size each key frame.
3. The method of claim 2, wherein reducing in size each key frame comprises uniformly reducing in size each key frame.
4. The method of claim 2, wherein reducing in size each key frame comprises
10 cropping each key frame.
5. The method of claim 1, further comprising, prior to generating the animated image file, enhancing image quality of each key frame.
6. The method of claim 5, wherein enhancing the image quality of each key
frame comprises combining the key frame with one or more frames surrounding
15 the key frame.
7. The method of claim 1, further comprising, prior to generating the animated image file, indexing colors of each key frame to colors of the animated image file.
8. The method of claim 1, wherein selecting the plurality of key frames from the video data file comprises:
20 segmenting the video data file into one or more shot segments; and,
for each shot segment, extracting one or more of the plurality of key frames from the shot segment.

9. The method of claim 8, wherein segmenting the video data file into the one or more shot segments comprises utilizing one or more of: shot boundary detection analysis, principal component analysis, zoned image content analysis, color coded analysis, adjacent frame content analysis, and motion detection analysis.
- 5 10. The method of claim 8, wherein extracting the one or more of the plurality of key frames from the shot segment comprises utilizing one or more of: histogram analysis, object segmentation analysis, object motion detection analysis, and object tracking analysis.
- 10 11. The method of claim 1, wherein selecting the plurality of key frames from the video data file comprises sampling the video data file at substantially regular intervals to obtain the plurality of key frames.
12. A method comprising:
 displaying, for a plurality of video files, a corresponding plurality of animated reduced image files representing the video files as a plurality of key frames
15 thereof that have been reduced in size and which are repetitively successively sequenced to provide thumbnail previews of the video files; and,
 in response to a user selecting one of the animated reduced image files, displaying the video file to which the animated reduced image file selected corresponds.
- 20 13. The method of claim 12, wherein displaying the corresponding plurality of animated reduced image files comprises displaying the corresponding plurality of animated reduced image files on a web page.
14. A computer-readable medium having a computer program stored thereon to perform a method comprising:
25 segmenting a video data file into one or more shot segments;
 for each shot segment, extracting one or more key frames from the shot

segment;

reducing in size each key frame of each shot segment; and,

generating an animated image file from the one or more key frames of the one or more shot segments.

5 15. The medium of claim 14, the method further comprising, upon failure to segment the video data file into the one or more shot segments or upon failure to extract the one or more key frames from each shot segment, sampling the video data file at substantially regular intervals to obtain the one or more key frames.

10 16. The medium of claim 14, the method further comprising, prior to generating the animated image file, enhancing image quality of each key frame of each shot segment by combining the key frame with one or more surrounding frames.

17. The medium of claim 14, the method further comprising, prior to generating the animated image file, indexing colors of each key frame of each shot segment to colors of the animated image file.

15 18. A computer-readable medium having data stored thereon representing:
a video file; and,
an animated reduced image file representing the video file as a plurality of key frames thereof that have been reduced in size and which are successively sequenced to provide a thumbnail preview of the video file.

20 19. The medium of claim 18, wherein the plurality of key frames of the video file encompass a plurality of shot segments of the video file, wherein each shot segment is a different scene within the video file.

25 20. The medium of claim 18, wherein the plurality of key frames are reduced in size via one of uniform size reduction and cropping to become the animated reduced image file.

21. The medium of claim 18, wherein the plurality of key frames are re-indexed from colors of the video file to colors of the animated reduced image file to become the animated reduced image file.

22. A video-recording device comprising:

- 5 a video-recording mechanism to record video files;
- a generator to generate an animated reduced image file for each video file as a plurality of key frames thereof that have been reduced in size and which are successively sequenced to provide a thumbnail preview of the video file; and,
- a display on which the animated reduced image files for the video files are
- 10 displayed for user selection of a particular video file for viewing thereof on the display.

23. The device of claim 22, wherein the video-recording mechanism is an analog video-recording mechanism to record analog video files, such that the generator digitizes the analog video files prior to generating the animated reduced image

15 files for the analog video files.

24. The device of claim 22, wherein the video-recording mechanism is a digital video-recording mechanism to record digital video files.

25. A video-recording device comprising:

- a video-recording mechanism to record video files;
- 20 means for generating an animated reduced image file for each video file as a plurality of key frames thereof that have been reduced in size and which are successively sequenced to provide a thumbnail preview of the video file; and,
- a display on which the animated reduced image files for the video files are displayed for user selection of a particular video file for viewing thereof on the
- 25 display.

26. A computing device comprising:

- a computer-readable medium on which a digital video file is storable; and,
 - a mechanism to generate an animated reduced image file for the digital video file as a plurality of key frames thereof that have been reduced in size and which
- 5 are successively sequenced to provide a thumbnail preview of the digital video file.

27. The computing device of claim 26, further comprising a display on which the animated reduced image files for the digital video file is displayed to preview the digital video file.

10 28. A computing device comprising:

- a computer-readable medium on which a digital video file is storable; and,
 - means for generating an animated reduced image file for the digital video file as a plurality of key frames thereof that have been reduced in size and which are
- successively sequenced to provide a thumbnail preview of the digital video file.

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